

REMARKS

Summary of Substance of Interview

Applicant thanks the Examiner for the courteous and productive telephonic interview conducted on February 11, 2008. During the interview, the Examiner's interpretation of the Ono reference (U.S. 7,050,779) was discussed. Applicant's representative explained that Ono discloses an RF processing integrated circuit, but fails to disclose or suggest an information processing terminal, and a transmitting and receiving unit which can be attached to or detached from the information processing terminal, as claimed.

The Examiner agreed that, as cited, Ono does not provide such disclosure, but stated that the reference would require further consideration. No agreement as regards allowability of the claims was reached.

Claim Rejections

Claims 1-2,16-29, 39 and 49-50 — 35 U.S.C. § 103(a)

Claims 1-2, 16-29, 39 and 49-50 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Imura Shigeru *et al.* (Japanese Publication No. 08-149035 hereinafter, "Imura") in view of Ono *et al.* (U.S. Patent No. 7,050,779 hereinafter, "Ono"). Applicant traverses this rejection.

The combination of Imura and Ono does not disclose or suggest at least an information processing terminal wherein a baseband processing section and the information processing terminal operate in synchronization with a clock as claimed by Applicant.

In the Response to Arguments section of the Office Action, the Examiner cites column 6, lines 18-31 of Ono, which state that "a control register CRG is provided in the control circuit 27,

and the setting of the register CRG is made on the basis of the signals from the baseband circuit 6. More concretely, clock signals CLK for synchronization, data signals SDATA, and load enable signals LEN as control signals are supplied to the RF processing unit 5 from the baseband circuit 6." See Office Action, page 2. Thus, the Examiner construes Ono's RF processing unit 5 as an information processing terminal. However, even under a broad construction, this interpretation fails.

As disclosed by Ono, the RF processing unit 5 demodulates the received signals and modulates the transmitting signals (column 3, lines 55-56). In other words, the RF processing unit does not perform information processing as understood by one of ordinary skill in the art, but performs the well understood functions of modulation and demodulation of transmitted signals. Thus, the Examiner misconstrues the operation of Ono since, as disclosed by Ono, the RF processing unit 5 provides baseband processing while the baseband circuit 6 provides information processing.

The operations cited above by the Examiner relate only to the loading of values into a control register in the RF processing unit. In other words, Ono merely discloses that *control data* from the baseband circuit is *clocked into a control register* in the RF processing unit. Therefore, based on the disclosure of Ono, throughput of the received and transmitted signals is not influenced by writing the control data from the baseband circuit into the control register of the RF processing unit since Ono's clock is not related to the transfer of the signals.

On the other hand, the A/D converter and other circuitry in embodiments of Applicant's invention are operated in synchronization with the clock signal so the propagation delay due to timing adjustment processes is reduced.

Thus, taken in context, it is clear that the Examiner's citation to Ono does not disclose or suggest at least wherein said baseband processing section and said information processing terminal operate in synchronization with a clock, as recited in the claims, since even under a broad construction, the RF processing unit of Ono cannot be construed to be an information processing terminal.

Further, the Examiner alleges that Ono discloses wherein an RF processing unit 5 converts transmission data into a transmission digital baseband signal. Ono, however, discloses that the baseband circuit 6 converts transmitting data into I signals and Q signals (column 3, lines 58-60). Ono also discloses that the modulator circuits 19 and 20 modulates of the generated orthogonal signals by using the I and Q signals supplied from the baseband circuit 6 (column 5, lines 10-12).

The modulator circuits 19 and 20 are modulators for modulating carriers signals, therefore, the I and Q signals are analog signals. Thus, the RF processing unit 5 converts the transmission data into analog I and Q signals.

Applicant also notes that, as disclosed by Ono, the transmission signal and the reception signal use a same signal line between the RF processing unit 5 and the baseband circuit 6. See Fig. 1. Since the signal line is used for the analog transmission and reception signals, even if the RF processing unit 5 generates a reception digital baseband signal or reception data, the signal or data cannot be transferred to the baseband unit 6.

In addition, the Examiner alleges that "the reception signal should be a digital baseband signal input digital-to-analog conversion is provided to the programmable gain amplifiers to convert to the reception data." Applicant submits that the Ono reference clearly describes that

the analog-to-digital converter circuits correspond to the respective gain control amplifiers PGA11 to PGA23 and convert into digital signals the output potential difference therebetween in a state of being short-circuited between the input terminals thereof" (column 4, lines 48-53). In other words, Ono discloses conversion into a digital signal of an output potential difference between input terminals of each of the programmable gain amplifiers. Thus, the analog-to-digital converter circuits do not generate the digital baseband signal.

In view of the above, it is clear that Ono does not disclose or suggest at least an information processing terminal wherein said baseband processing section and said information processing terminal operate in synchronization with a clock, as recited in the claims. Imura does not cure the deficiencies of Ono.

Therefore, one of ordinary skill in the art at the time the invention was made would not have been motivated to combine the references as attempted by the Examiner, since the combination would not result in the features claimed by Applicant.

Accordingly, since all the independent claims contain features similar to the features set forth above, claims 1-2, 16-29, 39 and 49-50 are patentable over the combination of Imura and Ono.

Claims 3, 6-8, 10, 13-15, 30-38 and 40-48 — 35 U.S.C. § 103(a)

Claims 3, 6-8, 10, 13-15, 30-38 and 40-48 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Imura in view of Ono, and further in view of Phillips *et al.* (U.S. Publication No. 2003/0118081 hereinafter, "Philips"). Applicant traverses this rejection.

As established above, the combination of Imura and Ono does not disclose or suggest at least the above-noted claimed features. Phillips does not cure the deficiencies of the Imura-Ono combination.

Therefore, one of ordinary skill in the art at the time the invention was made would not have been motivated to combine the references as attempted by the Examiner, since the combination would not result in the features claimed by Applicant.

Accordingly, claims 3, 6-8, 10, 13-15, 30-38 and 40-48 are patentable over the combination of Imura, Ono and Phillips for reasons similar to the reasons set forth above.

Allowable Subject Matter

Claims 4, 5, 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Since these claims depend from claim 1, which is patentable as established above, claims 4, 5, 11 and 12 are patentable at least by virtue of their dependence.

Conclusion

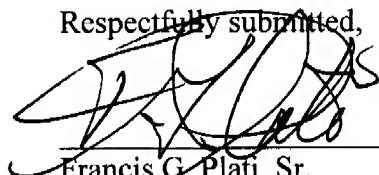
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Appln. No.: 10/551,415

Attorney Docket No.: Q90624

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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